

What is claimed is:

1. A method for operating a cardiac rhythm management device, comprising:

sensing rate and synchronized heart chambers through separate channels and generating sense signals upon detection of depolarization occurring in a chamber; and,

pacing the synchronized chamber in accordance with a synchronized pacing mode based upon rate chamber events wherein pacing of the synchronized chamber is inhibited during a synchronized chamber protect on period that is initiated by a synchronized chamber sense or pace.

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2. The method of claim 1 further comprising pacing the rate chamber in accordance with a bradycardia pacing mode based upon rate chamber senses and paces;

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3. The method of claim 1 wherein right and left ventricles are the rate and synchronized chambers, respectively, and the synchronized chamber protection period is a left ventricular protection period.

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4. The method of claim 1 wherein the paired atria are the rate and synchronized chambers.

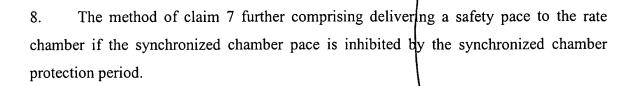
- 5. The method of claim 1 further comprising pacing one or more additional synchronized pacing sites in accordance with a synchronized pacing mode based upon rate chamber events and wherein pacing of each synchronized site is inhibited during a synchronized chamber protection period that is initiated by a sense or pace at the synchronized site.
- 6. The method of claim 2 wherein the synchronized pacing mode is an offset synchronized pacing mode.
- 7. The method of claim 2 wherein the synchronized pacing mode is a synchronized chamber-only synchronized pacing mode.

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- 9. The method of claim 2 wherein the synchronized pacing mode is a triggered synchronized pacing mode.
- 10. The method of claim 9 wherein a pace to the synchronized chamber may be triggered by a synchronized chamber sense and wherein the synchronized chamber protection period starts only after a specified delay from such a triggering event, which allows triggered pacing but prevents pacing during the vulnerable period of the synchronized chamber.
- 11. A cardiac rhythm management device, comprising:
 sensing channels for sensing depolarizations from heart chambers designated as a

rate chamber and a synchronized chamber;

a controller for controlling the delivery of paces in accordance with a programmed pacing mode; and,

wherein the controller is programmed to pace the synchronized chamber in accordance with a synchronized pacing mode based upon rate chamber events and wherein pacing of the synchronized chamber is inhibited during a synchronized chamber protection period that is initiated by a synchronized chamber sense or pace.

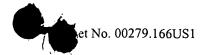
- 12. The device of claim 11 further comprising a pacing channel for delivering paces to the rate chamber and wherein the controller is programmed to pace the rate chamber in accordance with a bradycardia pacing mode.
- 13. The device of claim 11 wherein right and left ventricles are the rate and synchronized chambers, respectively, and the synchronized chamber protection period is a left ventricular protection period.

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- The device of claim 11 wherein the paired atria are the rate and synchronized 14. chambers.
- The device of claim 11 further comprising channels for pacing one or more 5 15. additional synchronized pacing sites in accordance with a synchronized pacing mode based upon rate chamber events and wherein pacing of each synchronized site is inhibited during a synchronized chamber protection period that is initiated by a sense or pace at the synchronized site.
 - The device of claim 12 wherein the synchronized pacing mode is an offset 16. synchronized pacing mode.
 - The device of claim 12 wherein the synchronized pacing mode is a synchronized 17. chamber-only synchronized pacing mode.
 - The device of claim 17 further comprising delivering a safety pace to the rate chamber if the synchronized chamber pace is inhibited by the synchronized chamber protection period.
 - The device of claim 12 wherein the synchronized pacing mode is a triggered 19. synchronized pacing mode.
 - The device of claim 19 wherein a pace to the synchronized chamber may be 20. triggered by a synchronized chamber sense and wherein the synchronized chamber protection period starts only after a specified delay from such a triggering event, which allows triggered pacing but prevents pacing during the vulnerable period of the synchronized chamber.





21. A method for operating a cardiac rhythm management device, comprising:

sensing a heart chamber through a sensing channel and generating sense signals upon detection of depolarization occurring in the chamber; and,

pacing the chamber asynchronously at a selected rate, but wherein pacing of the chamber is inhibited during a protection period that is initiated by a pace or sense in the chamber.

- 22. The method of claim 21 wherein the heart chamber is a ventricle.
- 10 23. The method of claim 22 wherein the heart chamber is an atrium.
 - 24. The method of claim 21 wherein the selected pacing rate is varied in accordance with measurements from an exertion level sensor.